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EXAMINER
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KHAN, ASHER R

ART UNIT	PAPER NUMBER
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2621

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/751,410	<b>Applicant(s)</b> SUH, JONG YEUL	
	<b>Examiner</b> ASHER KHAN	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed on October 10, 2008 have been fully considered but they are not persuasive.

In re page 11 lines 14 to page 13 line 5, applicant argues that Thiagarajan et al. fails to teach or suggest initializing identifying information. Applicant further argues that Thiagarajan et al. also does not teach or suggest requesting re-transmission of the broadcasting program intended to record through a network when the identification information is not changed.

In response examiner respectfully disagrees. Thiagarajan discloses creation or configuration of completion event upon detection of incomplete program recording (0036;0048) that is initializing of identifying information. Thiagarajan further discloses recording application 302 requesting of re-transmission of broadcasting program to content provider through broadcast network (110) when the completion event has been created and not changed (Fig. 1; 0047;0074).

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

**2. Claims 1, 3, 6-8, 9, 12-15, 19- 24, 27 and 30 are rejected under 35 U.S.C.**

**103(a) as being unpatentable over U.S. Patent Pub. 2007/0031111 A1 to**

**Thiagarajan et al. ("Thiagarajan") and in view of U.S. Patent in view of U.S. Patent 5,737,477 to Tsutsumi.**

As to claims 1 and 14, Thiagarajan discloses a PVR (Personal Video Recorder) system (Abstract)(Fig.3) comprising:

a channel demodulating part configured to receive and demodulate a broadcasting program on a particular channel (Tuner 306)(0031;0037);

a storage medium configured to store the broadcasting program (0038);  
an EPG parsing part configured to extract information on the broadcasting program intended to record from a data demodulated at the channel demodulating part (Processor(s) 308)(0050)(0040);

an upload/download controlling part configured to receive the broadcasting program intended to record from the channel demodulating part, to store the broadcasting program in the storage medium (0031;0047; communication between content provider and client) , to initialize identifying information (0048; configuration of completion event) for identifying success (determines if there is successful recording or not and if not then recording completion event is generated; 0049) of recording of the broadcasting program intended to record in response to an external recording signal, to control reproduction of the broadcasting program stored in the storage medium in

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response to an external reproduction signal (Fig. 3, Audio/video output), and to control the EPG parsing part (0026; client device runs on EPG); and

a re-recording processing part configured to store the identifying and information on the broadcasting program intended to record (0050), and to identify the identifying information (0062), to request re-transmission of the broadcasting program intended to record through a network when the identification information is not changed (when there is creation of completion event and program is not rebroadcast then request is communicated to program provider event when the identification information(completion event) is not changed i.e. has been created; 0014;0047;0074).

Thiagarajan does not expressly disclose to change the identifying information if the recording of the broadcasting program intended to record is successful.

Tsutsumi discloses to change the identifying information (Flag) if the recording of the broadcasting program intended to record is successful (Col. 4, lines 30-41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 3, Thiagarajan further discloses wherein the storage medium is a hard disc (0015).

As to claim 6, Thiagarajan further discloses wherein the upload/download controlling part (0031;0047) but Tsutsumi discloses it is configured to initialize the identifying information including recording flag value at the re-recording processing part to a first identifying information value in response to an external recording signal, to set the first identifying information value to a second identifying information value if the recording of the broadcasting program intended to record is successful, and to maintain the first identifying value as it is if the recording of the broadcasting program intended to record fails (Col. 4, lines 30-41; flag is set upon external recording signal by a remote control and when recording is completed it is reset).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 7, Thiagarajan does not expressly disclose but Tsutsumi further discloses wherein the upload/download controlling part is further configured to set the first identifying information value is set to '1', and the second identifying information value is reset to '0' (Col. 4, lines 30-41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one

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skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 20, Thiagarajan does not expressly disclose but Tsutsumi further discloses, wherein the step (b) further includes:

resetting the identifying information value set to '1' at the recording parameter storage part to '0' if the recording is successful as a result of the determination (0056); and maintaining the identifying information value set to '1' at the recording parameter storage part as it is if the recording fails (Col. 4, lines 30-41)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 21, Tsutsumi further discloses, further comprising changing the identifying information value stored in the recording parameter storage part if there is a user's record stop request (Col. 4, lines 30-41; release of video tape recording).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with

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no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 22, Thiagarajan discloses comprising maintaining the identifying information values of the broadcasting programs other than one program if the user requests writing of more than one program at the same time (0049; Completion events).

Thiagarajan does not expressly disclose identifying information other than one program to be '1'.

Tsutsumi discloses identifying information to be other than one program to be '1' (Col 4. lines 30-41)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

As to claim 8, Thiagarajan further discloses wherein the re-recording processing part includes:

a recording parameter storage part configured to store the identifying information, and information on the broadcasting program intended to record (0049-0054); and a network interface part configured to identify the identifying information, to request the re- transmission of the broadcasting program intended to record through a



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network when recording of the broadcasting program intended to record fails(Fig. 4; 0066-0074).

As to claim 9, Thiagarajan further discloses wherein the recording parameter storage part is a ROM (Fig. 3, non-volatile memory 316) (0038).

As to claim 12, Thiagarajan further discloses wherein the network interface part is a LAN (Fig. 2, Ethernet 218 (Ethernet is used with a LAN) or a MODEM (Fig. 3, modem 334).

As to claim 13, Thiagarajan further discloses wherein the network interface part is further configured to be connected to a program server (Fig. 1, 102) (0018) or a broadcasting station for communication (Fig 1, Broadcast transmitter 130) (0021).

As to claim 15, Thiagarajan further discloses wherein the user's recording setting information is information related to at least one of a recording operation, a scheduled recording operation, and a time shift operation (Fig 5, 502).

As to claim 19, Thiagarajan further discloses comprising:

(a) determining a successive recording of the broadcasting program intended to record (0066); and

(b) changing the identifying information value stored in the recording parameter storage part if the recording is successful as a result of the determination, and maintaining the identifying information value stored in the recording parameter storage part as it is if the recording fails, after the step of writing the broadcasting program on the storage medium (0067-0070).

As to claim 23, Thiagarajan further discloses transmitting information on the broadcasting program having recording thereof failed to a program server or a broadcasting station (0066)(Fig. 1, 104,136); and

re-receiving the broadcasting program having recording thereof failed from the program server or the broadcasting station, and writing the broadcasting program having recording thereof failed, after the step of requesting re-transmission of the broadcasting program intended to record through the network interface part (0066-0070).

As to claim 24, Thiagarajan further discloses wherein the information on the transmitted broadcasting program is a program ID for matching to the program (Fig. 4, 405).

As to claim 27, Thiagarajan further discloses if recording of the broadcasting program fails as a result of the determination, renewing the information on the broadcasting program stored in the recording parameter storage part (0063-0070).

As to claim 30, Thiagarajan further discloses where in the re-recording processing part renews the information on the broadcasting program intended to be recorded (0066).

3. 4. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al. ("Thiagarajan") in view of U.S. Patent in view of U.S. Patent 5,737,477 to Tsutsumi and in further view of U.S. Patent Pub. 2002/0141451 A1 to Gates et al. ("Gates").**

As to claim 2, Thiagarajan further discloses wherein the channel demodulating part includes;

a channel receiving part configured to tune to, and demodulate a broadcasting signal on a particular channel (Client device 108)(0037).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Thiagarajan does not expressly disclose to forward in a form of a transport TP stream; and a TP processing part configured to split the TP stream from the channel receiving part into an audio PES stream, a video PES stream, and a data stream.

Gates discloses to forward in a form of a transport TP stream; and a TP processing part configured to split the TP stream from the channel receiving part into an audio PES stream, a video PES stream, and a data stream (0036).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine teachings of Thiagarajan as modified with the teaching of Gates. Motivation to combine would be to demultiplex the transport stream to reproduce it on reproducing medium (0036).

**5. Claim 4, 5, 18, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al.**

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**("Thiagarajan") in view of U.S. Patent 5,737,477 to Tsutsumi and in further view of U.S. Patent Pub. 2002/0188945 A1 to McGee et al. ("McGee")**

As to claim 4, Thiagarajan discloses wherein the information on the broadcasting program extracted at the EPG parsing part is channel information, a record starting time of the broadcasting program intended to record (Fig 4, Program composite key 404)(0067).

Thiagarajan does not expressly disclose a record end time.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Thiagarajan with the teachings of Tsutsumi. Rationale to combine would have been that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and combine Thiagarajan as modified with the teachings of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

As to claim 5, Thiagarajan further discloses wherein the record starting time is a starting time of the program intended to record if the recording is a scheduled recording, and a time when a recording/time shift button is pressed if the recording is a direct recording or a time shift (0019)(0058).

As to claim 18, Thiagarajan the broadcasting program information includes channel information, a record starting time, and a record end time of the recording program, and the record starting time is a starting time of the program intended to record in a case of the scheduled recording, and a time when a recording/time shift button is pressed in a case of direct recording or a time shift operation (0019)(0058).

Thiagarajan does not expressly disclose a record end time.

McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and combine Thiagarajan with the teachings of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

As to claim 28, Thiagarajan further discloses wherein the step of renewing the information on the broadcasting program stored in the recording parameter storage part further includes;

re-receiving program related information from the program server or the broadcasting station(0066); and

overwriting the program related information on a relevant position of the recording parameter storage part, and scheduling writing of the program automatically by using stored record starting time and record end time (Inherent in 0066).

Thiagarajan does not expressly disclose record end time.

McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

As to claim 29, Thiagarajan further discloses wherein the overwritten program related information includes channel information, a record starting time of a recording program(0050)(0066).

Thiagarajan does not expressly disclose a record end time.

McGee discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and Thiagarajan with the Teaching of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

**7. Claim 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al. ("Thiagarajan") in view of U.S. Patent 5,737,477 to Tsutsumi in view of U.S. Patent Pub. 2002/0188945 A1 to McGee et al. ("McGee") and Patent Pub. 2004/0002987 A1 to Clancy et al. ("Clancy") and in further view of Patent Pub. 2002/0021886 A1. to Nakajima et al. (Nakajima).**

As to claim 11 and 17, Thiagarajan as discussed in claim 1 above does not expressly disclose wherein the record starting time field, or the record end time field includes 4 bits of a month field, 5 bits of a day field, 5 bits of an hour field, and 6 bits of a minute field.

Nakajima discloses wherein the record starting time field, or the record end time field includes 4 bits of a month field, 5 bits of a day field, 5 bits of an hour field, and 6 bits of a minute field (0209).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of Thiagarajan as modified with the teaching of Nakajima. Motivation to combine the elements would have been to express the fields in to binary numbers for the reason to be able to integrate the system into a digital system.

**8. Claim 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to Thiagarajan et al. ("Thiagarajan") in view of U.S. Patent in view of U.S. Patent 5,737,477 to Tsutsumi and in view of U.S.**

**Patent Pub. 2002/0188945 A1 to McGee et al. ("McGee") and in further view of U.S. Patent Pub. 2004/0002987 A1 to Clancy et al. ("Clancy").**

As to claims 10 and 16, Thiagarajan further discloses wherein the recording parameter storage part includes one bit of an identifying information field (unique id 405), 20 bits of a record starting time field (broadcast start time 412), and 7 bits of a channel information field (channel number 410) (Fig 4, Program composite key 404).

Thiagarajan does not expressly disclose a record end time field and number of bits to be used in each field.

McGee discloses a record end time field (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time and Thiagarajan with the Teaching of McGee. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (Thiagarajan, 0050).

Clancy discloses that EPG data may be in any binary format i.e. number of bits (0080).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of Thiagarajan as modified with the teachings of Clancy. Motivation to combine the three references would have been to express the EPG Data in binary to for facilitating storage and/or compression of data (0080), so the system is able to store more information and process the information faster.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHER KHAN whose telephone number is (571)270-5203. The examiner can normally be reached on 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. K./  
Examiner, Art Unit 2621

/Thai Tran/

Supervisory Patent Examiner, Art Unit 2621